

December 3, 2010

**MEMORANDUM**

**TO:** Zachariah E. Beasley, P.L.S./M.S. - Tippecanoe County Surveyor

**FROM:** David W. Eichelberger, P.E. - CBBEL, Indianapolis

**PROJECT:** **Industrial Pallet Corporation Master Drainage Study  
CBBEL Project No. 02-038 (IH)**

**DEVELOPER/OWNER:** **Industrial Pallet Corporation**

**LOCATION:** **40° 15' 19" Latitude  
-86° 41' 53" Longitude**

**RECOMMENDATION:** **Final Approval with Conditions**

Ongoing development of the subject property has been addressed by preparing a Master Drainage Study to assess existing as well as proposed stormwater drainage features needed to effectively manage on-site and off-site stormwater runoff. The industrial facility is located on the east side of US 52, approximately 0.25 miles north of State Road 28 in Lauramie Township. Additionally, the property is bounded by East County Line Road and an abandoned railroad line to the north.

Currently, the west half of the industrial property is occupied by an approximately 39,000 square-foot building, outdoor wood pallet storage, parking lots, driveways, and wood mulch stockpiles. The east half of the facility is agricultural land, which will be developed to expand existing operations. Two (2) on-site wet ponds discharge to Lauramie Creek (in a northerly direction through adjacent farmed property) via a 10-inch diameter tile and a culvert at County Road 1075 South.

The Master Drainage Study addresses the proposed replacement of the existing ponds with a single, enlarged pond designed to provide stormwater quantity and quality control. A new 24-inch storm sewer outlet pipe extending 1,925 feet to the county road culvert will replace the existing 10-inch tile. The Design Drainage Basins exhibit indicates the tile system serving the eastern part of the project site will be abandoned. Also, it appears the on-site portion of a natural depression will be altered and a vegetated swale/subsurface tile system will be constructed. As proposed, the drainage swale will route on-site and off-site runoff along the southeast perimeter of the project site to an existing tile line on the adjoining landowner's property to the east (Rusk Property). Details of the planned site improvements are not known at this time; however, a maximum impervious value of 80% for the area discharging to the new detention pond has been proposed.

Based on information available to CBBEL, there are no regulated drains located on or near the project site. There are no regulated drain encroachments or crossings proposed with this development. The subject site drains to Lauramie Creek and the South Fork Wildcat Creek, which ultimately drains into the Wabash River. The project site is not located within the Tippecanoe County MS4 Area or a 305(b) Priority Watershed.

This Master Drainage Study was previously reviewed in a memorandum dated November 11, 2010. After a review of the most recently provided information, CBBEL recommends final approval of the Master Drainage Study with the following conditions:

## **Variances/Encroachments**

1. The applicant is requesting detention storage and stormwater quality variances for Basins TA-WEST and TA-SOUTH due to minimal increases in impervious surface area – less than ½ acre and ¼ acre, respectively. These drainage basins will not be routed through the proposed pond. Runoff from Basin TA-WEST flows westerly and directly to roadside swales along US 52. Runoff from Basin TA-SOUTH flows southerly and directly onto the adjoining property. **The pre-development and post-development runoff calculations for these basins still should be submitted.** Additionally, the applicant is requesting a stormwater quality variance for Basin TA-3, which will bypass the proposed pond and convey off-site runoff to the northeast.

## **Stormwater Quantity**

1. Future construction plans submitted for drainage approval must show the designed storage volumes assumed in the Master Drainage Study for the southeastern portion of the site.
2. Per Chapter 3, Section 2.C of the Ordinance, when project site stormwater drains through adjoining property to reach a regulated drain or natural waterway, the owners of the affected property must provide either written consent of land use or be notified in writing of a hearing before the Tippecanoe County Drainage Board regarding the proposed use. The Kerber and Rusk property owners should be notified in accordance with the Ordinance.

## **General Conditions**

1. The applicant must present the Master Drainage Study at the Tippecanoe County Drainage Board meeting for it to be considered for approval.
2. The applicant must pay any final drainage review fees per Ordinance 2005-04-CM.

No error or omission in the plans, calculations or applications (whether said plans, calculations or applications have been reviewed by the review engineer or not) shall permit or release the applicant and designer from constructing this work in any other manner than that provided for in the County Ordinance.

pc: TBIRD Design Services Corporation

DWE/jd

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